

ABSTRACT OF THE DISCLOSURE

A first encoding section encodes an original picture  $S(1)$  and outputs it to a communication line of a first channel.

The encoded image data is decoded in a first decoding section.

5 This decoded data  $C(1)$  is input to a first compensation section. The first compensation section uses the original picture  $S(1)$  and the decoded data  $C(1)$  as the input, and performs calculation of the following expression (1) to thereby generate a first compensated original picture  $S(2)$ :

10 
$$S(i+1) = (S(1) \times i - \sum_{k=1}^i C(k)) / (N-i) + S(1) \quad \dots (1)$$

wherein  $i = 2$  to  $N$ , and  $N$  denotes the total number of channels in image encoding.

15 The first compensated original picture  $S(2)$  is encoded in a second encoding section and output from a communication line of a second channel. Thereafter, similar operation is performed for the total number of channels  $N$ . According to this invention, there can be provided an apparatus for dividing, compressing and transmitting video data that can 20 sufficiently improve the encoding efficiency, without requiring preferential transmission of the basic data.